

Focus

Wild Arizona

Key Words:

Adaptation: physical or behavioral characteristic that helps an animal or plant survive

Evaporation: when water changes from a liquid to a gas

Indicator Species: an animal or plant that often marks or identifies a specific habitat

Limiting Factor: an environmental condition or resource that limits the survival or growth of organisms

Precipitation: water that falls from the sky, typically as rain or snow

Which statements below are true?

- Deserts are hot and dry.
- Deserts are barren, with very few plants and animals.
- Animals and plants that live in the desert do not need water to survive.

If you answered “none of the above,” then you are correct. That’s right, each of those statements is false. Let me explain.

Deserts do tend to be dry. In fact, they typically get less than 10 inches of **precipitation** each year. But parts of the Sonoran Desert get more than 15 inches of precipitation each year. That’s as much as Denver, Colo.!

So, we need to look at another factor: **evaporation**. In deserts, water tends to evaporate much faster than it can be absorbed by the plants. If plants



ILLUSTRATION BY TRACY HILL

can’t absorb the water, they can’t grow additional food for animals.

Deserts tend to be hot, which speeds up evaporation. However, not all deserts are hot. The Great Basin desert, found in northern Arizona, is known as a cold desert. It may not get much above 90 degrees in summer and can drop below 20 degrees in winter. It even snows there. Yet it is still considered a desert because the amount of water available to sustain life is in short supply.

Water is a **limiting factor** in deserts. However, this does not mean animals and plants are struggling to survive. In fact, they are thriving! They have specific **adaptations** that allow them to survive, including highly efficient water conservation techniques or unique ways of acquiring water. With the exception of the tropical rainforests, the Sonoran Desert is home to more species of plants and animals than any other area of its size.

The kangaroo rat provides an excellent example of one of these adaptations. It does not need to drink water because it pulls all of the water it needs from food such as seeds. In fact, these animals are so well-adapted to survive

in the desert, if you picked them up and put them in another ecosystem, they may not survive.

About 20 percent of the Earth’s land is desert. That means for every four square miles of forest, grassland, tundra or other habitat, there is one square mile of desert. Our planet has more than 20 deserts. North America has four major deserts, each with slightly different characteristics. And all four deserts are found in Arizona.



ILLUSTRATION BY TRACY HILL

By Eric Proctor

Sonoran Desert

- Location: northern Mexico, south-eastern California and up through southwestern and central Arizona
- Rainy season: summer “monsoons” and smaller winter rains
- Indicator species: saguaro cactus
- Interesting fact: most diverse desert in the world

Mojave Desert

- Location: portions of California, Utah, Nevada and western Arizona
- Rainy season: small summer and winter storms
- Indicator species: Joshua tree
- Interesting facts: In this smallest, driest and hottest desert in North America, one city recorded more than 750 days without rain. The highest temperature recorded was 134 degrees.

Chihuahuan Desert

- Location: primarily in Mexico, but stretches into southeastern Arizona and western New Mexico
- Rainy season: summer
- Indicator species: agave
- Interesting fact: largest desert in North America, larger than the entire state of California

Great Basin Desert

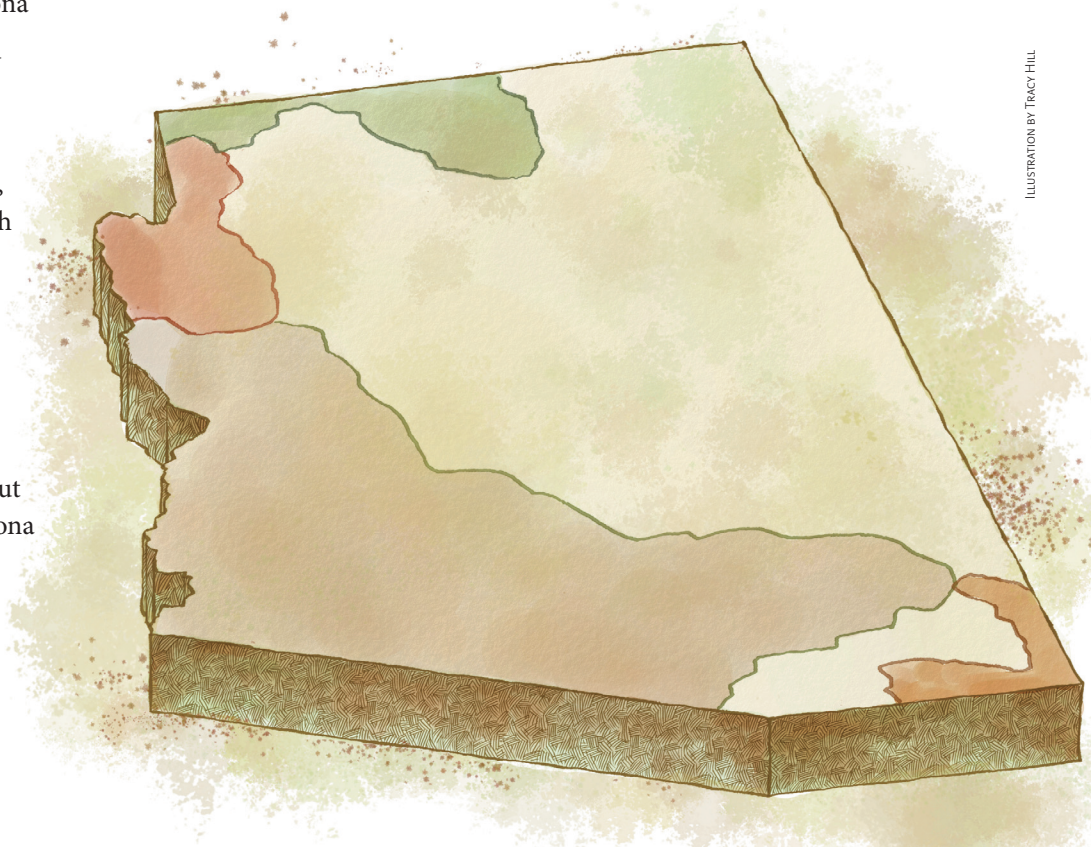
- Location: primarily in Nevada, but extends through portions of Utah, California, Oregon and northern Arizona
- Rainy season: winter
- Indicator species: sagebrush
- Interesting fact: a cold desert that receives most of its precipitation as snow

The map below shows rough approximations of the deserts found in

Arizona. Based on what you’ve read, label the deserts.

Just for fun:

Pretend you work for the Arizona Board of Tourism. Your job is to get more people to visit the Arizona deserts. Select one desert and create a poster that might convince people to visit it. Remember to use descriptive language and colorful pictures to get people interested. 🦋



■ This feature is part of the Arizona Game and Fish Department’s Focus Wild Arizona program, a free

educational program for teachers, parents, students or anyone interested in learning about wildlife and

habitat. Visit our Web site, www.azgfd.gov/focuswild, to find exciting lessons and resources.